UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,213	09/01/2004	Kei-Hsiung YANG	HANP0001USA	5212

27765 7590 12/18/2006

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER	
SIM, YONG H	
ART UNIT	**PAPER NUMBER**
2635	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/18/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/711,213	YANG ET AL.	
	Examiner	Art Unit	
	Yong Sim	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/15/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections.

1. Claim 7 is objected to because of the following informalities: The claim contains grammatical errors. Please correct "of the of the" to read as "of the."

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 7 – 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hinata (US 6,369,865).

Re claim 1, Hinata discloses an input-sensor-integrated liquid crystal display panel (1, Fig. 1), comprising: a first substrate (8b, Fig. 1) having at least one pixel controlling circuit (14, Fig. 1, Col. 6, lines 63 – 65; "IC for driving the liquid crystal."); a second substrate (4, Fig. 1), having a touch-detecting circuit (22, Fig. 1) and being positioned on top of the first substrate; and a liquid crystal layer (L, Fig. 1) filled between the space formed by the first substrate and the second substrate (Fig. 1).

Re claim 7, Hinata discloses the input-sensor-integrated liquid crystal display panel of claim 1 wherein the touch-detecting circuit is positioned on an outer side of the

of the second substrate (See figure 1; notice that the detecting circuit is on top of the second substrate. Therefore, it is on the outer side of the second substrate.).

Re claim 8, Hinata discloses the input-sensor-integrated liquid crystal display panel of claim 1 wherein the first substrate dis-coincide with the second substrate and has at least one protrusion (See fig 1. Notice that the first substrate has a protrusion, and does not coincide with the second substrate.)

Re claim 9, Hinata discloses the input-sensor-integrated liquid crystal display panel of claim 8 wherein the protrusion includes a plurality of signal connecting contacts (See fig. 1. 12 is the terminal for external connection for LCD drive circuit.).

Re claim 12, Hinata discloses the input-sensor-integrated liquid crystal display panel of claim 1 wherein the touch-detecting circuit is a resistance detecting circuit, capacitance detecting circuit, sound wave detecting circuit, or optical detecting circuit (Col. 7, lines 27 – 47; "the resistance value between the electrode terminal and the specified point determine the coordinate position.").

4. **Claims 1, 3 – 4 and 10 – 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Colgan (US 6,483,498).**

Re claim 1, Colgan et al. disclose an input-sensor-integrated liquid crystal display panel (10, Fig. 1), comprising: a first substrate (8, Fig. 1) having at least one pixel controlling circuit (5, Fig. 1; TFT array); a second substrate (18, Fig. 1), having a touch-detecting circuit (32, 28, Fig. 1; conductive layer with linearization pattern.) and being positioned on top of the first substrate; and a liquid crystal layer (12, Fig. 1) filled between the space formed by the first substrate and the second substrate (Fig. 1).

Re claim 3, Colgan et al. disclose the input-sensor-integrated liquid crystal display panel of claim 1 wherein the second substrate further comprises a color filter (18, Fig. 1; Color filter).

Re claim 4, Colgan et al. disclose the input-sensor-integrated liquid crystal display panel of claim 3 wherein the color filter is formed on the touch-detecting circuit (See Fig. 1).

Re claim 10, Colgan et al. disclose the input-sensor-integrated liquid crystal display panel of claim 1 further comprising a polarizer (24, Fig. 1).

Re claim 11, Colgan et al. disclose the input-sensor-integrated liquid crystal display panel of claim 10 wherein the touch-detecting circuit is positioned between the second substrate and the polarizer [See fig. 1. Notice that the detecting circuit is positioned between the second substrate (18) and the polarizer (24)].

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinata (US 6,369,865) in view of Ikeda et al. (US 2001/0020986 A1).**

Re claim 6, Hinata discloses the input-sensor-integrated liquid crystal display panel of claim 1, but does not disclose the touch-detecting circuit that is positioned on an inner side of the second substrate facing the first substrate. However, Ikeda et al. disclose a tablet integrated liquid crystal display comprising a second substrate (Ikeda: 26, Fig. 4) and a touch-detecting circuit (Ikeda: 27, Fig. 4; tablet electrode layer) positioned on an inner side of the second substrate.

Therefore, taking the combined teachings of Hinata and Ikeda et al., as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the tablet integrated liquid crystal display with a second substrate and a touch- detecting circuit (Ikeda: Fig. 4) as taught by Ikeda et al. to the input-sensor-integrated liquid crystal display panel (Hinata: Fig. 1) of Hinata to obtain an input-sensor integrated liquid crystal display panel with a touch-detecting circuit positioned on an inner side of a second substrate in which the parallax between the tip of an input pen and a display image is eliminated without occurrence of the bending of a substrate and the damage of a switching element (Para 0011).

Re claim 2, Hinata et al. disclose the input-sensor-integrated liquid crystal display panel of claim 1, but does not disclose the first substrate which further comprises a color filter. However, Ikeda et al. disclose a tablet integrated liquid crystal display comprising a first substrate (Ikeda: 3, Fig. 6) and a color filter (Para 44, lines 9 – 11; “substrate 3 with a color filter.”)

Therefore, taking the combined teachings of Hinata and Ikeda et al., as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the tablet integrated liquid crystal display with a first substrate comprising a color filter (Ikeda: Fig. 6) as taught by Ikeda et al. to the input-sensor-integrated liquid crystal display panel (Hinata: Fig. 1) of Hinata to obtain an input-sensor integrated liquid crystal display panel with a touch-detecting circuit positioned on an inner side of a second substrate in which the parallax between the tip of an input pen and a display image is eliminated without occurrence of the bending of a substrate and the damage of a switching element (Para 0011).

4. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hinata (US 6,369,865) in view of Mai (US 2004/0141096 A1).**

Re claim 5, Hinata et al. disclose the input-sensor-integrated liquid crystal display panel of claim 3, but does not disclose the color filter and the touch-detecting circuit that are formed on different sides of the second substrate. However Mai discloses a flat display device (Mai: Fig. 1) with a touch panel comprising a second substrate (Mai: 132, Fig. 1) with a color filter (Mai: 130, Fig. 1) and a detecting circuit (Mai: 144, Fig. 1) formed on different sides of the second substrate.

Therefore, taking the combined teachings of Hinata and Ikeda et al., as a whole, it would have been obvious to a person having ordinary skill in the art to incorporate the flat display device (Mai: Fig. 1) with a touch panel comprising a second substrate

(Mai: Fig. 1) as taught by Mai to the input-sensor-integrated liquid crystal display panel (Hinata: Fig. 1) of Hinata to obtain an input-sensor integrated liquid crystal display panel with a second substrate with a color filter and a detecting circuit (Mai: 144, Fig. 1) formed on different sides of the second substrate to provide a display module that is lighter and thinner (Para 9).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Antila et al. (US 6,583,770) discloses a display arrangement which displays in two different directions and includes a first display displaying in a second, essentially opposite direction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Sim whose telephone number is (571) 270-1189. The examiner can normally be reached on Monday - Friday (Alternate Fridays off) 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-2000. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YHS

VU LE
SUPERVISORY PATENT EXAMINER